

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-17 (Canceled).

Claim 18 (Currently Amended) A device for locking a position of a moving part with respect to a fixed part, the moving part being positioned with respect to the fixed part isostatically, the device comprising:

a female dovetail belonging to the fixed part;

a male dovetail belonging to the moving part, wherein bases of the female and male dovetails are in contact and define three first isostatic points, and wherein two inclined faces in contact, each belonging to one of the female and male dovetails, respectively, define fourth and fifth isostatic points; and

means for generating a force opposing a loss of contact of a plurality of points of isostatic contact between the moving part and the fixed part so as to lock the position.

Claim 19 (Canceled)

Claim 20 (Currently Amended) The device as claimed in claim ~~19~~18, wherein a sixth isostatic point stops translation of the female and male dovetails, with respect to each other, and the sixth isostatic point is formed between a face belonging to the fixed part, which face is inclined with respect to the base of the female dovetail and distinct from the inclined faces of the female dovetail, and a point on the moving part coming into abutment with this face.

Claim 21 (Currently Amended) The device as claimed in claim ~~19~~18, wherein a direction of force is parallel to the bases of the female and male dovetails.

Claim 22 (Previously Presented) The device as claimed in claim 21, wherein the moving part has a finger configured to move in translation with respect to the moving part and configured to bear against a surface of the fixed part, and wherein a position and orientation of the surface of the fixed part are defined so that the force is directed between the fourth and fifth isostatic points on a side of the direction of the force and the sixth isostatic point on an opposite side thereof.

Claim 23 (Previously Presented) The device as claimed in claim 22, wherein near a contact between the finger and the surface of the fixed part, the finger is substantially convex and the surface of the fixed part is substantially planar.

Claim 24 (Previously Presented) The device as claimed in claim 22, further comprising an elastic element tending to press the finger against the surface of the fixed part in such a way that the force maintains contact of the first to sixth isostatic points.

Claim 25 (Previously Presented) The device as claimed in claim 22, wherein the fixed part comprises means for compressing the elastic element when the moving part nears its isostatic position with respect to the fixed part without any external action other than action necessary for the bringing-together being needed to compress the elastic element.

Claim 26 (Previously Presented) The device as claimed in claim 22, wherein translational movement of the finger with respect to the moving part is limited in both directions of the translational movement.

Claim 27 (Previously Presented) The device as claimed in claim 23, wherein an orientation of the surface of the fixed part and a coefficient of friction of the finger with respect to the surface are defined such that only a force tending to compress the elastic element can move the moving part with respect to the fixed part.

Claim 28 (Currently Amended) The device as claimed in claim ~~19~~18, further comprising additional means opposing loss of contact of the fourth and fifth isostatic points.

Claim 29 (Previously Presented) The device as claimed in claim 28, wherein the additional means comprises a facet belonging to the moving part and pressing against an inclined face of the female dovetail opposite to the inclined face of the female dovetail that defines the fourth and fifth isostatic points.

Claim 30 (Previously Presented) The device as claimed in claim 29, wherein the facet belongs to an element configured to move in translation with respect to the moving part along an axis of translation of the finger roughly perpendicular to an axis of travel of the female and male dovetails with respect to each other, and wherein the moving element is connected to the moving part by a second elastic element.

Claim 31 (Previously Presented) The device as claimed in claim 30, wherein the axis of translation of the finger is coincident with an axis of translation of the moving element, and wherein the second elastic element tends to separate the moving element from the finger.

Claim 32 (Previously Presented) A device for locking a position of a moving part with respect to a fixed part, the moving part being positioned with respect to the fixed part isostatically, the device comprising:

means for generating a force opposing a loss of contact of a plurality of points of isostatic contact between the moving part and the fixed part so as to lock the position;

a female dovetail belonging to the fixed part and a male dovetail belonging to the moving part, wherein bases of the female and male dovetails are in contact and define three first isostatic points, and wherein two inclined faces in contact, each belonging to one of the female and male dovetails, respectively, define fourth and fifth isostatic points, and a sixth isostatic point stops translation of the female and male dovetails, with respect to each other, and the sixth isostatic point is formed between a face belonging to the fixed part, which face is inclined with respect to the base of the female dovetail and distinct from the inclined faces of the female dovetail, and a point on the moving part coming into abutment with this face; and

means opposing loss of contact of the fourth and fifth isostatic points comprising a facet belonging to the moving part and pressing against an inclined face of the female dovetail opposite to the inclined face of the female dovetail that defines the fourth and fifth isostatic points,

wherein the facet belongs to an element configured to move in translation with respect to the moving part along an axis of translation of the finger roughly perpendicular to an axis of travel of the female and male dovetails with respect to each other, the moving element is connected to the moving part by a second elastic element, the axis of translation of the finger is coincident with an axis of translation of the moving element, the second elastic element tends to separate the moving element from the finger, and the translational movement of the finger of the moving element is guided by a second female dovetail belonging to the moving

part in which there slides a second male dovetail secured to the finger and a third male dovetail belonging to the moving element.

Claim 33 (Previously Presented) The device as claimed in claim 31, wherein the moving part is unlocked with respect to the fixed part by exerting a force on the moving element in a direction substantially perpendicular to a line containing the fourth and fifth isostatic points.

Claim 34 (Previously Presented) The device as claimed in claim 31, wherein a stiffness of the elastic element is greater than a stiffness of the second elastic element.

Claim 35 (Previously Presented) A device for precisely and repeatedly locking two parts, the device comprising:

a fixed part having a substantially planar base and a female dovetail;

a moving part having a substantially planar base and a male dovetail, such that, when a portion of said moving part is inserted inside a portion of said fixed part, said male dovetail fits substantially inside said female dovetail and a surface of said substantially planar base of said fixed part contacts a surface of said substantially planar base of said moving part; and

force generating means for generating a force opposing a loss of contact of a plurality of contact points between said portion of said moving part and said portion of said fixed part so as to lock the parts together.

Claim 36 (Previously Presented) The device of claim 35, wherein a direction of said force is parallel to the bases of the female and male dovetails and off-axis to a direction of translation of said moving part with respect to said fixed part.

Claim 37 (Previously Presented) The device of claim 35, wherein the moving part has a finger configured to translate with respect to the moving part in a direction substantially perpendicular to a direction of translation of said moving part with respect to said fixed part, wherein, near a contact between the finger and a surface of the fixed part, the finger is substantially convex and the surface of the fixed part is substantially planar.

Claim 38 (Previously Presented) The device of claim 37, wherein an orientation of the surface of the fixed part and a coefficient of friction of the finger with respect to the surface are defined such that only a force tending to compress the elastic element can move the moving part with respect to the fixed part.